SEMENOV, V.V.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

Name	Title of Work	Nominated by
Kostenko, M.P. Latmanizov, M.V. Urusov, I.D. Ivanov, V.I. Kyzhov, P.I. Sokolov, T.N. Semenov, V.V. Zherebin, F.I.	"An Electrodynamic Model of a Power System"	Institute of Automatics and Telemechanics, Academy of Sciences

SO: W-30604, 7 July 1954

SEMENOV,V.V., dotsent, kandidat tekhnicheskikh nauk

Hydroelectri elements for calculating a series of hydroelectric power stations. Trudy MEI no.12:57-87 '54. (MLRA 8:10)
(Hydroelectric power stations)

FATEYEV, Aleksandr Vasil'yevich; SEMENOV, V.V., redaktor; ZABRODINA, A. A., tekhnicheskiy redaktor.

[Principles of the linear theory of automatic control] Osnovy lineinoi teorii avtomaticheskogo regulirovaniia. Moskva, Gos. energeticheskoe izd-vo, 1954. 295 p. (MLRA 8:2)
(Automatic control)

VORONOV, A.A.; PERVOZVANSKIY, A.A.; SEMENOV, V.V

Electrodynamic models of hydraulic turbines and their speed regulators. Izv.AN SSSR.Otd.tekh.nauk no.1:30-46 Ja '56. (MLRA 9:5)
(Hydraulic turbines--Models)

8(6), 14(6) SOV/112-59-4-6716

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 4, p 46 (USSR)

AUTHOR: Semenov, V. V.

TITLE: Electrodynamic Simulation of Hydraulic Turbines and Their Governors

PERIODICAL: V sb.: Mezhvuz. konferentsiya po primeneniyu fiz. modelirovaniya v elektrotekhn. zadachakh i matem. modelirovaniya. M., 1957, p 59

ABSTRACT: Simulating hydroturbines by means of a separately excited DC motor is considered. The peculiarities of Kaplan-turbine characteristics are reproduced by means of magnetic amplifiers, and governor characteristics are represented by DC computer-type amplifiers.

V.R.S.

Card 1/1

SOV/124-58-7-7659 D

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 7, p 46 (USSR)

AUTHOR: Semenov, V.V.

TITLE: Electrodynamic Analog Studies of Water Turbines, Speed Regulators, and Penstocks on Dynamic Power-system Analogs (Elektrodinamicheskoye modelirovaniye gidroturbin, regulyatorov skorosti i napornykh truboprovodov v dinamicheskikh modelyakh energosistem)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Technical Sciences, presented to the Leningr. elektrotekhn. in-t (Leningrad Electrotechnical Institute), Leningrad, 1958

ASSOCIATION: Leningr. elektrotekhn. in-t (Leningrad Electrotechnical Institute), 1958

1. Turbines--Analysis 2. Speed regulators--Analysis
3. Hydraulic conduits--Analysis 4. Power plants--Equipment

Card 1/1

SEMENOV, V.V.

Electrodynamic modeling of the hydraulic part of hydroelectric power stations. Nauch. dokl. vys. shkoly; energ. no.2:219-230 '58. (MIRA 11:11)

1. Institut elektromekhaniki AN SSSR.
(Hydroelectric power stations--Models)

AUTHOR: Semenov, V. V. SOV/30-58-10-10/53

TITLE: Electro-Dynamic Model Representation of Pressure Discharge Pipes (Elektrodinamicheskoye modelirovaniye napornykh truboprovodov)

PERIODICAL: Vestnik Akademii nauk SSSR, Nr 10, pp 61-63 (USSR) 1958

ABSTRACT: The electro-dynamic models of electrical systems also include models of water turbines with discharge pipes and speed regulators. The closest approximation to the processes in the hydraulic parts of power plants can be obtained by model representation on a physical basis. This, however, involves a number of technical and construction problems. Therefore, in recent times the mathematical representation of the hydraulic parts of power plants has been used. Ye. L. Sirotinskiy, A. A. Pervozvanskiy, and R. A. Poluektov made suggestions in this respect which, however, could hardly be realized. At the Institut elektromekhaniki Akademii nauk SSSR (Institute of Electro-Mechanics of the AS USSR) a model was worked out on behalf of the Leningradskiy metallicheskiy zavod (Leningrad Metal Works). This model serves for the exploration of regulation dynamics of high-pressure hydrounits and derives from the equations of

Card 1/2

Electro-Dynamic Model Representation of Pressure Discharge Pipes

N. Ye. Zhukovskiy for the movement of liquids in a pressure discharge pipe. In figure 1 an electric block pattern of a model plant is shown and in figures 2, 3, and 4 oscillograms taken at the model. A standard block of the EPZ-1 type was used for this model. There are 4 figures.

Card 2/2

BOBROV, V.M.; VORONOV, A.A.; GLEBOV, I.A.; IVANOV, V.I.; KARPOV, G.V.; KASHTELYAN, V.Ye.; SEMENOV, V.V.; SIROTKO, V.K.; SIRYI, N.S.; SUKHANOV, L.A.; URUSOV, I.D.; FETISOV, V.V.; FOMINA, Ye.N.; KOSTENKO, M.P., akademik, red.; DOLMATOV, P.S., red.izd-va; SMIRNOVA, A.V., tekhn.red.

[Electrodynamic modeling of power engineering systems] Elektrodinamicheskoe modelirovanie energeticheskikh sistem. Pod red. M.P.Kostenko. Moskva, 1959. 406 p. (MIRA 13:2)

1. Akademiya nauk SSSR. Institut elektromekhaniki.
(Electric networks--Electromechanical analogies)

SEMENOV, V. V.

PHASE I BOOK EXPLOITATION SOV/4706

Akademiya nauk SSSR. Institut elektromekhaniki

Sbornik rabot po voprosam elektromekhaniki, vyp. 4: Elektricheskiye mashiny, elektricheskiy privod, elektricheskaya tyaga na peremennom toke, avtomatizirovannyy elektroprivod teleskopov, avtomaticheskoye regulirovaniye i pribory (Collection of Works on Problems in Electromechanics, No. 4: Electric Machines, Electric Drive, A-C Electric Traction, Automated Electric Drive of Telescopes, Automatic Regulation and Instruments) Moscow, 1960. 282 p. 5,500 copies printed.

Resp. Ed.: V. V. Sidel'nikov; Ed. of Publishing House: I. V. Suvorov; Tech. Ed.: R. A. Zamarayeva.

PURPOSE: This collection of works is intended for specialists in electromechanics.

COVERAGE: The collection contains 28 works divided into three sections: 1) Electric Machines, 2) Electric Drive and Electric Traction; 3) Automated Electric Drive, and Automatic Regulation and Instruments. No personalities are mentioned. References accompany most of the articles.

AUTOMATED ELECTRIC DRIVE. AUTOMATIC REGULATION AND INSTRUMENTS

Sabinin, Yu. A. Basic Problems of Automating the Electric Drive of Telescopes 157

Yegorov, V. P. Servomechanisms With a Converter of Spherical Coordinates With Application to Astronomy Problems 174

Nikolayev, P. V. Photoelectric System of Automatic Guidance of Telescopes 189

Yerdilov, B. L. Digital Analogs 202

Radchenko, A. N. Method of Raising the Order of Code Rings 213

Filippov, V. I., and A. N. Radchenko. Readout of Data From Shift Registers With a Logical Feedback 226

Perovskaya, Ye. I., V. V. Semenov, and Ya. N. Fomina. Utilization of Electronic Integrators for Investigating the Dynamics of Regulating the Speed of a Waterwheel Set 235

Sakhnency, A. V., V. V. Semenov, and N. P. Stepura. The Indicating Part of a Waterwheel Electrohydraulic Governor Equipped With Magnetic Amplifiers 243

Ignat'yev, M. B. A Method of Optimum Programming of Second-Order Curves 248

Myasnikov, V. A. Application of the Hall Effect for Measuring Electromagnetic Moments of Electric Machines 254

Kovalevskaya, V. V., and B. Z. Balen'kiy. Measuring Phase Shift Using Discrete Methods 270

Vinogradova, R. G., I. P. Rozhnova, and L. N. Tikhomirova. Harmonic Analyzers of Frequency Spectrum of Nonperiodic Electric Oscillations 276

(2)

SEMENOV, V.V., dotsent

Fundamentals of calculating cascaded water power regulation using the logarithmic characteristics of reservoirs. Izv. vys. ucheb. zav.; energ. 3 no. 7:134-141 Jl '60. (MIRA 13:8)

1. Moskovskiy ordena Lenina energeticheskiy institut. Predstavlena kafedroy gidroenergetiki.

(Hydroelectric power stations)

SEMENOV, V.V., dotsent, kand.tekhn.nauk

Methods of calculating water power controlling stages using the logarithmic characteristics of water reservoirs. Izv. vys. ucheb. zav.; energ. 3 no. 12:92-102 D '60. (MIRA 14:2)

1. Moskovskiy ordena Lenina energeticheskiy institut. Predstavleno kafedroy gidroenergetiki.
(Water power) (Automatic control)

7

PHASE I BOOK EXPLOITATION SOV/5533

Akademiya nauk SSSR. Institut elektromekhaniki.

Spetsial'nyye voprosy avtomatizirovannogo elektroprivoda (Special Problems of the Automatic Electric Drive) Moscow, Izd-vo AN SSSR, 1961. 248 p. Errata slip inserted. 6,500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut elektromekhaniki.

Eds. (Title page): D. A. Zavalishin, Corresponding Member, Academy of Sciences USSR, and V. V. Rudakov, Candidate of Technical Sciences; Ed. of Publishing House: N. V. Travin; Tech. Ed.: R. A. Arons.

PURPOSE: This book is intended for technical personnel engaged in designing or operating regulated and automated electric drives for machines and mechanisms. It may also be useful to students in advanced courses working on term and degree projects.

Card 1/9

Special Problems of (Cont.) SOV/5533

COVERAGE: The book discusses the principles of operation and the methods of computation of regulated drives with a-c and d-c motors. Special attention is paid to problems related to the frequency method of induction motor control, which the authors consider the most promising. Recommendations regarding the use of a-c commutator motors and induction motors with special winding and improved starting characteristics are made. A considerable part of the book is devoted to problems of design and calculation of the control circuits for automated d-c drives, and to methods of investigating dynamic characteristics of d-c drive systems by means of electronic and electrodynamic models. Recent developments in regulated d-c drives and modern methods of analyzing and synthesizing automated d-c systems, based on investigations carried out by the Institut elektromekhaniki AN SSSR (Institute of Electromechanics AS USSR), are discussed in detail. The book was written by the following persons: A. A. Dartau (Chs. II and III), D. A. Zavalishin (Introduction, sections 1, 4, 5, and 6 of Ch. I, and Ch. II); S. V. Korotkov (Ch. VI, sec. 3);

Special Problems of (Cont.) SOV/5533

I. I. Laptev (sections 4 and 5 of Ch. V); O. V. Popov (Ch. IV; sections 2, 4, and 5 of Ch. V, and sec. 3 of Ch. VI,); V. A. Prozorov (sections 1, 2, and 3 of Ch. I.); V. V. Rudakov (Introduction, sec. 1 of Ch. V, sections 1 and 4 of Ch. VI); V. V. Somenov (sec. 3 of Ch. V); Ye. M. Smirnov (sec. 2 of Ch. VI); E. F. Stepura (sec. 3 of Ch. V); A. V. Fateyev (Introduction). There are 69 references: 59 Soviet, 7 German, 2 English, and 1 French.

TABLE OF CONTENTS:

Foreword 3

Introduction. Present State and Paths of Development of Automated Electric-Drive Systems 5
1. General information 5

SEMENOV, V.V.

[illegible], V.V.; [illegible], I.P.

The FM/5 flotation [illegible]. Biul. tekh.-ekon. inform. no. 2:6-7 '61. (MIRA 14:3)

(Flotation)

31028
S/573/61/000/005/020/023
D201/D305

27.4000

AUTHORS: Yevdokimov, S.A. Semenov, V.V., Sokolov, G.N., and Tarasov, V.A.

TITLE: Electronic instruments for analyzing bio-currents

SOURCE: Akademiya nauk SSSR. Institut elektromekhaniki. Sbornik rabot po voprosam elektromekhaniki. no. 5, Moscow, 1961. Avtomatizatsiya, telemekhanizatsiya i priborostroyeniye, 276 - 281

TEXT: A description is given of a set of electronic instruments for amplification, automatic analysis and recording of biopotentials designed at the Institute of electromechanics in conjunction with the Institut Fiziologii im. I.P. Pavlova AN SSSR (Institute of Physiology im. I.P. Pavlov AS USSR) to increase the accuracy of physiological investigations, simplifying the work of experimentation and partially automating the process of results. The equipment has the following basic units: 1) The bio-current four amplifier unit for amplifying small potential differences (magnitude of microvolts)

Card 1/3

Electronic instruments for ...

producing enough power to drive a 100-milliamp vibrator of a loop oscillograph and to drive all following stages. Frequency range is 0.5 - 5 c/s and 50 to 1500 c/s. The reduced input noise level is approximately 1 microvolt at maximum pass-band. 2) α and β rythm filters, for separate detection of corresponding brain pulsations. Each filter is in the form of a multi-stage selective amplifier with a balanced output for oscillograph connection. The first three stages of the selective amplifier have local frequency-selective feedback, composed of a twin-T bridge between anode and grid. Both filters have a slope of approximately 24 db per cycle; 3) Three integrators. The output from the integrator is then applied to a comparison circuit with a type TG1-01/03 (TG1-01/03) thyratron which switches the integrator into its starting situation when the integrated voltage reaches approx. 70 V. A special pulse forming circuit applies a pulse to an electro-mechanical counter; the number of pulses over a certain period determines the α rythm; 4) A connector panel which permits easy assembly of the required circuit. 5) A generator producing 10 c/s for checking the α rythm channel and 18 c/s for the β-rythm channel. The output voltage is calibrated in 5,

Card 2/3

Electronic instruments for ...

25, 50, 250 and 500 micro-volts. The generator is made of two integrating amplifiers and an inverter. 6) Programmed control arrangement for repetitive experiments in conditioned reflexes and simultaneous observations of various physiological processes. The described set of instruments was installed at the beginning of 1959 at one of the laboratories of the Institute of Physiology im. I.P. Pavlov AS USSR; it is in use and has been highly rated by physiologists. There are 2 figures and 2 Soviet-bloc references.

X

Card 3/3

31030
S/573/61/000/005/022/023
D201/D305

9,2530

AUTHORS: Semenov, V.V., and Stepura, E.F.

TITLE: Increasing the pass-band of a magnetic amplifier by means of feedback delay

SOURCE: Akademiya nauk SSSR. Institut elektromekhaniki. Sbornik rabot po voprosam elektromekhaniki. no. 5, Moscow, 1961. Avtomatizatsiya, telemekhanizatsiya i priborostroyeniye, 321 - 324

4

TEXT: In many practical cases the magnetic amplifiers operate with heavy negative feedback which increases the pass-band and the amplifier gain. It is shown in the present article that by introducing a delay into the feedback circuit an additional increase of the pass-band may be obtained. Let the amount of feedback be determined by factor β and its delay by the time constant T_o. Let the amplifier parameters be k_a and T_a without feedback. Then after introducing the feedback the magnetic amplifier must have a gain k and a maximum possible pass-band. This corresponds to a certain va-

Card 1/5

Increasing the pass-band of a ...

lue of T_o which has to be determined. Presenting the transfer junction of the amplifier in the form of a second order circuit

$$W(p) = k \frac{pT_o + 1}{p^2T^2 + 2\zeta Tp + 1}$$

4

is obtained, where

$$T = \sqrt{\frac{T_a T_o}{1 + \beta k_a}}; \qquad \zeta = \frac{T_a + T_o}{2\sqrt{T_a T_o (1 + \beta k_a)}} .$$

The shape of the resulting frequency response of the amplifier with delay in the feedback circuit is therefore determined by coefficient ζ and the ratio of T and T_o. Putting $\alpha = T/T_o$ and choosing T_o so that

$$T_o = \frac{T_a}{\alpha^2(1 + \beta k_a)}$$

Card 2/

Increasing the pass-band of a ...

The attenuation coefficient is then given by

$$\zeta = \frac{\alpha}{2} + \frac{1}{2(1 + \beta k_a)} .$$

If $\beta k_a \gg 1$, then $\zeta \approx \alpha/2$. The results are shown in Fig. 2, where $\Omega = \omega/\omega_o$; ω_o being given by

$$\omega_o = \frac{1 + \beta k_a}{T_a} .$$

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In Fig. 2, curve 1 represents the frequency response of magnetic amplifier with heavy negative feedback without delay. Curve 2 is for $\zeta = \alpha/2 = 0.6$ and $T = 1/1.2\omega_o$. The numerator ot the transfer function is represented by curve 3 when $\omega_o = 1/\alpha^2\omega_o = 1/1.44\omega_o$. Curve 4 is the sum of 2 and 3 and represents the frequency response of magnetic amplifier with delayed negative feedback, showing that the pass-band is approximately equal to 1.85Ω. It may be shown that the above method may be considered from the point of

SEMENOV, V.V., kand.tekhn.nauk, dotsent

Principles of the theory of the calculation of the installed capacity of a cascade of hydroelectric power stations operating in interconnected electric utility systems. Trudy MEI no.35:19-64 '61. (MIRA 15:12)
(Interconnected electric utility systems) (Hydroelectric power stations)

SEMENOV, V.V., kand.tekhn.nauk, dotsent

Principles of the calculation of relationships for determining the operating modes of hydroelectric power stations in a consolidated electric power system. Trudy MEI no.35:65-108 '61. (MIRA 15:12)
(Interconnected electric utility systems)(Hydroelectric power stations)

YEVDOKIMOV, S.A.; SEMENOV, V.V.; SOKOLOV, G.N.; TARASOV, V.A.

Program control in experiments with conditioned reflexes. Fiziol. zhur. 47 no.4:522-524 Ap '61. (MIRA 14:6)

1. From the Pavlov Institute of Physiology and the Institute of Electromechanics, U.S.S.R., Academy of Sciences, Leningrad.
(CONDITIONED RESPONSE)

SEMENOV, N.A.; SEMENOV, V.V., otv. red.; MAKSAKOVA, A.I., red.

[Radiation of center-fed dipoles] Izluchenie simmetrichnykh vibratorov; uchebnoe posobie po kursu "Antenny." Moskva, Pt.2., ch.1. 1962. 61 p. (MIRA 16:4)

1. Vsesoyuznyy zaochnyy elektrotekhnicheskiy institut svyazi.
(Radio—Antennas) (Antennas (Electronics))
(Microwaves)

S/194/62/000/006/061/232
D295/D308

AUTHORS: Sakhmanov, A.V., Semenov, V.V., and Stepura, E.F.

TITLE: Optimum operating conditions of a symmetrical twin T-shaped bridge in an electro-hydraulic control system of water-turbine speed

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 6, 1962, abstract 6-2-149 u (Sb. rabot po vopr. elektromekhan., In-t elektromekhan AN SSSR, no. 5, 1961 95-98)

TEXT: It is suggested to use, in circuits determining the deviation of the output frequency of the generator from its set value, a twin T-shaped bridge instead of induction coils with a steel core or tuning forks, which not only increases the stability of the circuit characteristics, but also permits to regulate the slope of the characteristic of the frequency-deviation detector by varying the voltage applied at the input of the bridge. An investigation is carried out of a twin T-shaped bridge having as the load the control windings of a magnetic amplifier. On the basis of equations descri-

Card 1/2

bing the steady-state operating conditions of the bridge, an expression is found for the slope of the frequency dependence of the in-phase current component in the load resistance, and the optimum value of the transformation ratio of the matching transformer is found for which this slope is a maximum. 7 references. [Abstractor's note: Complete translation.]

SEMENOV, N.A.; SEMENOV, V.V., otv. red.; MAKSAKOVA, A.I., red.

[Matching of balanced vibrators and transmission lines] Soglasovanie simmetrichnykh vibratorov s fiderom; uchebnoe posobie po kursu "Antenny." Moskva. Pt.2., ch.2. 1962. 89 p. (MIRA 16:4)

1. Vsesoyuznyy zaochnyy elektrotekhnicheskiy institut svyazi.
(Radio lines) (Microwaves)

SEMENOV, V. V.
AID Nr. 99729 25 June

TRIAL USE OF ELECTRONIC EQUIPMENT WITH PROGRAMMED CONTROL IN A PHYSIOLOGICAL EXPERIMENT (USSR)

Yevdokimov, S. A., R. P. Ol'nyanskaya, V. V. Semenov, V. A. Tarasov, and G. A. Trubitsyna. IN: Konferentsiya po metodam fiziologicheskikh issledovaniy cheloveka. Materialy. (Materials of the conference on methods of investigating human physiology). Moskva, 1962. 72-73.
S/926/62/000/000/002/004

A programmed control device which assures the maintenance of strictly constant conditions during the simultaneous recording of a number of physiological processes (e.g., gas metabolism, bioelectric activity of brain and muscles, pulse and respirations rates) has been designed by a research team from the Institute of Physiology imeni I. P. Pavlov, Academy of Sciences USSR, and the Electromechanical Institute of the State Committee on Automation and Machine Building, Council of Ministers USSR. The use of programmed control has several advantages: it affords great accuracy in the

Card 1/2

AID Nr. 997-9 25 June

TRIAL USE OF ELECTRONIC EQUIPMENT [Cont'd] S/926/62/000/000/002/004

conduct of experiments, significantly simplifies experimental procedure, and reduces the chance of human error introduced by the investigator. The device consists of a central panel into which the inputs and outputs of all the instruments and the circuit of the oscillograph vibrators are connected; a commutator for switching the integrator outputs to the various groups of electromechanical counters, for stopping and starting the oscillograph, and for feeding excitation pulses; and a circuit for reading and writing magnetic tape-recorded signals. Magnetic recording makes immediately available a reserve of carefully prepared programs. The switching circuit has been provided with several switches permitting partial modifications of the experimental program (e.g., suspending the feeding of auditory signals and oscillograph recording of a supplementary record of parts of the experiment) without changing tapes. The device can be used under laboratory or clinical conditions for studying work and sport activity in humans.

[DMP]

Card 2/2

S/275/63/000/002/016/032
D405/D301

AUTHORS: Semenov, V.V., Stepura, E.F., Tarasov, V.A. and Fomina, Ye.N.

TITLE: An application of simulation equipment in electroencephalographic investigations

PERIODICAL: Referativnyy zhurnal, Elektronika i eye primeneniye, no. 2, 1963, 9, abstract 2V49 (Dokl. 4-y Mezhvuz. konferentsii po primeneniyu fiz. i matem. modelirovaniya v razlichn. otraslyakh tekhn. v. 3, M., 1962, 281-285)

TEXT: A band filter with two resonance circuits was selected as the basic equipment for simulation. The simulation circuits were designed in such a way, so as to serve as permanent networks in the electro-encephalographic equipment. The operational d.c.-amplifiers developed for the filter models, have a gain factor of about 1000. Owing to the selection of a 2-stage parallel compensation circuit, zero tuning is carried out only when replacing tubes and during general adjustment of the setup. The simulation of the

Card 1/2

An application of simulation ... S/275/63/000/002/016/032
D405/D301

equations of the band filter with resonance circuits was effected by means of 4 integrators and a summator. In distinction to actual LC-filters, which owing to their size are not feasible within the frequency-range used in electro-encephalography, and to circuits incorporating twin-T filters and line repeaters of higher complexity which are very difficult to tune, the model-filter is free of these shortcomings. The model-filter ensures a specified passband width of adequate uniformity within the passband and sufficient attenuation-steepness; it is easy to retune and has high input impedance and low output impedance. The model constructed is used for singling out various rhythms from the electro-encephalogram for their quantitative and qualitative evaluation during fixed intervals of time. The quantitative estimate of the mean activity of the various rhythms and of the integral curve is effected by means of operational integrator-amplifiers. For convenience, the integration result is converted into digital form. A calibration oscillator was developed for testing and calibration of all the channels of the electro-encephalographic setup; it too, utilizes operational amplifiers. The setup can also be used for other investigations. 2 references.
[Abstracter's note: Complete translation]

Card 2/2

KAVUN, Ye.S.; DMITRIYEV, A.N.; KON'KOV, V.G.; SEMENOV, V.V.; YAKOVLEV, A.V.

Digital tracking systems using ferrite and transistor cells. Avtom. upr. i vych. tekh. no.5:231-294 '62. (MIRA 15:9)
(Automatic control) (Electronic calculating machines)

S/573/62/000/007/015/015
D201/D308

AUTHORS: Semenov, V.V., Stepura, E.F., Tarasov, V.A. and Fomina, Ye.N.

TITLE: An electronic pass-band filter for an EEG pattern analyzer

SOURCE: Akademiya nauk SSSR. Institut elektromekhaniki. Sbornik rabot po voprosam elektromekhaniki. no. 7, 1962. Avtomatizatsiya, telemekhanizatsiya i priboro-stroyeniye, 373-375

TEXT: The authors show the possibility of designing very low frequency pass-band filters using electronic analog techniques. An analog of a passive pass-band LC filter is taken as an example. It consists of 4 integrators and an adder for sign inversion. An experimentally designed filter of the analog type had a 3 db pass-band of 4 c/s at a center frequency of 9 c/s. The filter was used to detect the α-rhythm. These filters, having a very high input impedance, may be easily connected to other instruments, their tun-

Card 1/2

An electronic pass-band ...

ing is simple and they may quickly be switched to other frequencies. Various types of filters can be built from the same standard units. There are 3 figures.

Card 2/2

SEMENOV, N.A.; POLYKOVSKIY, A.M.; SEMENOV, V.V., otv. red.; VRONSKAYA, L.S., red.

[Surface-wave lines for television transmission] Linii poverkhnostnoi volny dlia peredachi televideniia. Moskva, Red.-izd. otdel VZEIS, 1963. 71 p. (MIRA 18:3)

VORONOV, A.A.; SEMENOV, V.V.; STEPURA, E.F.

Problems concerning the control of a diesel-electric drive. Sbor. rab. po vop. elektromekh. no.9:154-160 '63. (MIRA 17:2)

SAKHMANOV, A.V.; SEMENOV, V.V.; STEPURA, E.F.

Regulation of the velocity of a hydraulic turbine-generator unit with consideration of perturbations. Sbor. rab. po vop. elektromekh. no.9: 314-323 '63.

Network for the automatic control of traction motor load. Ibid.:145-153 (MIRA 17:2)

ZOLOTAREV, T.I., akademik, doktor tekhn.nauk; SEMENOV, V.V., kand.tekhn.nauk; BELYAYEV, L.S., kand.tekhn.nauk

Principal layout of the hydroelectric power engineering laboratory of the Siberian Power Engineering Institute of the Academy of Sciences of the U.S.S.R. Trudy MEI no.46:97-120 '63.

(MIRA 16:3)

1. AN Kazakhskoy SSR (for Zolotarev). 2. Kafedra gidroenergetiki Moskovskogo ordena Lenina energeticheskogo instituta (for Semenov). 3. Sibirskiy energeticheskiy institut AN SSSR (for Belyayev).

ACCESSION NR: AT4035417 S/0000/63/000/000/0257/0264

AUTHOR: Stepura, E. F.; Semenov, V. V.

TITLE: The use of magnetic amplifiers for multiplying two or more electrical signals

SOURCE: Vsesoyuznoye soveshchaniye po ferritam i po beskontaktny*m magnitny*m elementam avtomatiki. 3d, Minsk. Ferrity* i beskontaktny*ye elementy* (Ferrites and noncontact elements); doklady* soveshchaniya. Minsk, Izd-vo AN BSSR, 1963, 257-264

TOPIC TAGS: computer, multiplication, magnetic amplifier, product unit

ABSTRACT: A common magnetic throttle amplifier with bridge-circuited alternating-current coils was examined as the product unit in a study of its possible use for multiplication. As seen from the equation for the outlet voltage of a magnetic bridge amplifier

$$U_0 = \frac{A}{1 + \varkappa F_c} U_{\sim} I_y. \qquad (1)$$

where A is the coefficient of proportionality, $U_{\sim}$ is the feed voltage, I_y is the current in the amplifier, x is a throttle constant, depending on the core material and geometrical dimensions, and F_c is the magnetizing coil force, to secure more accurate multiplication results it is necessary to make the quantity A as nearly constant as possible, which can be achieved

Card 1/2

ACCESSION NR: AT4035417

either by cascade interconnection of the magnetic amplifiers, or by functional modification of the initial bias of the magnetic amplifier so that within a given range of the variables I_y and $U\sim$

$$\frac{A}{1+\varkappa F_c} = \text{const.} \qquad (2)$$

The product unit constructed by the authors has the following technical characteristics: the saturation throttle cores are made of E-42 steel with 1500, 650, 185, and 800 turns in the alternating current, bias, balance and control coils, respectively; the total resistance in the balance coil circuit is 220 ohms; I_0 = 200 ma the magnetizing force = 160 ampere-turns; $I_y \leq 0.12$ a; $U\sim \leq 60$ v, and the feed voltage frequency = 50 cps. Products of three and more variables as well as integer powers of one variable as well as integer powers of one variable can be obtained by means of the product unit. Orig. art. has: 15 figures and 8 formulas.

ASSOCIATION: none

SUBMITTED: 04Dec63 DATE ACQ: 07May64 ENCL: 00

SUB CODE: DP NO REF SOV: 006 OTHER: 003

Card 2/2

SIDEL'NIKOV, V.V., kand. tekhn. nauk, otv. red.; [illegible],
K.A., kand. tekhn. nauk, red.; [illegible] V.V., kand. tekhn.
nauk, red.;

[Automatic control, remote control, and instrument manufacture] Avtomatika, telemekhanika i priborostroenie. Moskva, Nauka, 1964. 281 p. (MIRA 18:1)

1. Leningrad. Institut elektromekhaniki.

L 9947-65 EWT(1)/EEC-4/EWA(h) Peb AFETR/ASD(a)-5/RAEM(a)/ESD(c)/ESD(t)/RAEM(t)

ACCESSION NR: AP4045496 S/0109/64/009/009/1700/1702

AUTHOR: Semenov, V. V.

TITLE: Equivalent boundary conditions for an irregular helical waveguide

SOURCE: Radiotekhnika i elektronika, v. 9, no. 9, 1964, 1700-1702

TOPIC TAGS: waveguide, helical waveguide, irregular helical waveguide, helical waveguide theory

ABSTRACT: Formulas for boundary conditions are developed which permit estimating the losses of electromagnetic waves in a helical waveguide whose actual cross-section differs from the correct circle. Two particular cases are analyzed: (a) impedance boundary conditions for a ring waveguide having a dielectric sheath in a metal jacket and (b) boundary conditions of an anisotropic surface with a helix-turn angle $\psi \neq 0$. Orig. art. has: 18 formulas.

ASSOCIATION: none

SUBMITTED: 14Nov63 ENCL: 00

SUB CODE: EC NO REF SOV: 005 OTHER: 001

Card 1/1

VORONOV, Avenir Arkad'yevich; BEGEKERSKIY, V.A., doktor tekhn. nauk, retsenzent; SEMENOV, V.V., kand. tekhn. nauk, nauchn. red.; PAVLOVA, L.S., red.

[Fundamentals of the theory of automatic control] Osnovy teorii avtomaticheskogo upravleniia. Moskva, Energiia. Pt.1. 1965. 395 p. (MIRA 18:7)

SIDEL'NIKOV, V.V., kand. tekhn. nauk, otv. red.; AMBROSOVICH, V.D., red.; GARBUZOV, A.R., red.; SEMENOV, V.V., kand. tekhn. nauk, red.; CHERNYSHEVA, V.V., red.

[Automatic and distance-type data transmitting systems] Avtomaticheskie i teleinformatsionnye sistemy. Moskva, nauka, 1965. 299 p. (MIRA 18:8)

1. Leningrad. Institut elektromekhaniki.

L 58544-65 EWT(d)/EPF(n)-2/EWP(v)/T/EWP(k)/EWP(h)/EED-2/EWP(1) Po-4/Pq-4/Pf-4/ Pg-4/Pae-2/Pu-4/Pk-4/Pl-4 IJP(c) BB/WW/GG/BC

ACCESSION NR: AP5012881 UR/0280/65/000/002/0110/0122 68 B

AUTHOR: Solodovnikov, V. V. (Moscow); Semenov, V. V. (Moscow)

TITLE: Synthesizing computer adaptive systems 9

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 2, 1965, 110-122

TOPIC TAGS: computer adaptive control, 16 automatic control, automatic control design, automatic control system, 4 automatic control theory

ABSTRACT: A method is reported of setting up algorithms for a computer-type adaptive nonstationary automatic-control system; the method allows for constraints imposed on the range of variables. In an open-loop system, the controllable changes of system characteristics depend on the computer extremum conditions. In a closed-loop system, the controllable changes are introduced for determining the extremum of (a) the control-purpose index and (b) the control-quality index (double optimization). Minimum of mean-square random error, at a

Card 1/2

L 58544-65

ACCESSION NR: AP5012881

specified dynamic error, is assumed as a primary optimization criterion. Synthesizing an open-loop adaptive system includes the following steps: (1) Synthesis of an optimal model of the system; (2) Setting up an algorithm for the device evaluating (filtering) the desirable signal; (3) Setting up an algorithm for determination of current dynamic characteristics of the system elements; (4) Synthesizing the structure of a correcting filter. Synthesis of a closed-loop adaptive system includes all of the above steps plus: (5) Synthesis of the closed loops. Orig. art. has: 9 figures and 46 formulas.

ASSOCIATION: none

SUBMITTED: 20Jul64 ENCL: 00 SUB CODE: DP, IE

NO REF SOV: 011 OTHER: 001

awm

Card 2/2

SEMENOV, V. V.

THIRD CONGRESS OF THE INTERNATIONAL FEDERATION OF AUTOMATIC CONTROL

London -20-25 June 1966

The following was slated to present a paper at the Congress:

Principles of Control Algorithms Synthesis for Analytical Adaptive Control Systems	V. V. Solodovnikov V. V. Semenov	USSR USSR

SEMENOV, V.V.

Fast waves in a helical waveguide with a dielectric coating and metal casing. Radiotekh. i elektron. 10 no.12:2240-2242 D '65. (MIRA 19:1)

1. Institut radiotekhniki i elektroniki AN SSSR.

ACC NR: AP7006034 SOURCE CODE: UR/0288/66/000/002/0084/0097

GRABOVETSKIY G. V., SEMENOV V. V. AND PETROV E. L., Novosibirsk Institute of Electrical Engineering (Novosibirskiy elektrotekhnicheskiy institut)

"Mathematical Analysis of the Rectifier-Type Frequency Converter"

Novosibirsk, Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR (News of the Siberian Division of the Academy of Sciences SSSR), No 6, 1966, pp 84-97.

Abstract: The article deals with the rectifier-type frequency converter; this is a device which finds increasing application in converting power-line frequency to 500-1000 Hz. The system described here has a stiff external characteristic and produces a nearly sinusoidal output voltage; it operates over a wide range of loads and that includes no-load, which is impossible with other known systems, as well as regeneration i.e. pumping energy back into the line. The analysis begins with the no-load condition, whereby both the single-phase and the three-phase versions are considered; the formulae are later modified to account for the presence of a resistive and inductive load. Calculations are made by the method of harmonic components and, thus, the distortion of the output waveform is shown to be insignificant even at no-load; consequently, it is not necessary to consider the higher harmonics in these calculations. In addition, the plate current and the peak-inverse-voltage are determined, also the recovering time of the rectifier: namely, the time it takes for the rectifier to resume control

Card 1/2 UDC: 621.314.26

09270820

ACC NR: AP7006034

after the plate current has ceased to flow. The formulae established here can be useful in designing individual components of this converter circuit, whether the latter employs a switch or a commutator (thyratrons, thyristors). Orig. art. has: 5 figures and 40 formulas. [JPRS: 39,568]

TOPIC TAGS: frequency converter, electronic rectifier

SUB CODE: 09 / SUBM DATE: 01Jul65 / ORIG REF: 004

Card 2/2

L 32635-66 FBD/EWT(l)/EWP(e)/EWT(m)/EEC(k)-2/T/EWP(k) IJP(c) WH/WG

ACC NR: AP6018740 SOURCE CODE: UR/0057/66/036/006/1115/1117

AUTHOR: Yevtushenko, T.P.; Malyshev, G.M.; Ostrovskaya, G.V.; Semenov, V.V.

ORG: Physicotechnical Institute im. A.F.Ioffe, AN SSSR, Leningrad (Fiziko-tekhnicheskiy institut)

TITLE: Investigation of a spark in air with the aid of two synchronized lasers

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 6, 1966, 1115-1117

TOPIC TAGS: ruby laser, laser application, spark shock wave, shadowgraph photography

ABSTRACT: The spark produced in air by focusing the 0.5 J giant pulse from a ruby laser was investigated by casting its shadow with the synchronized giant pulse from a second similar laser. Synchronization of the giant pulses from the two lasers was accomplished by employing the same rotating prism to modulate the regeneration of both lasers. The two lasers were mounted approximately at right angles; one laser viewed the rotating prism directly and the other laser viewed it through a 90° reflecting prism which was mounted above the axis of the first laser. The delay between the two laser pulses was varied from about 30 nanosec to 3-4 microsec by adjusting the angle between the axes of the two lasers. The scatter of the delay times was 20 to 100 nanosec and is ascribed mainly to instability of the 25,000 rpm angular velocity of the rotating prism. It is suggested that this technique for synchroniz-

UDC: 537.523.4

Card 1/2

SEMENOV, V.V., inzhener.

Casting protective plates and welding rods (electrodes) from cobalt stellite. Energomashinostroenie no.6:24-26 Je '56. (MLRA 9:9)
(Stellite) (Founding) (Electrodes)

SEMENOV, V.V.

4

1-4E2C
1-4E3,2

"Local disturbances of structure in silver halide. A. S. Pomenko and V. V. Semenov. *Sbornik Fiz.-Mat. Fak. i Nauch.-Issledovatel. Inst. Fiz. Odessk. Univ.* 5, 78–6(1954); *Referat. Zhur., Khim.* 1956, Abstr. No. 3255.—The spectral distribution of photoconductivity of AgCl and AgBr and the effect on it of treatment with $HgCl_2$, which destroys the surface color centers, were studied. Measurements were made on monocryst. layers 6×10^{-4} to 2×10^{-3} cm. thick between the quartz sheets, at 10 mμ intervals in the region of 760–248 mμ. In the spectral curves of photoconductivity of AgBr and AgCl, $HgCl_2$ treatment results in the weakening of max. in the short-wave section and in its total disappearance and leveling of curve in the long-wave section. The disappearance of the max. is attributed to the destruction of the surface photochemical color centers.
Alexis N. Pestoff

NS

KALEDIN, I.I., inzh. (Novosibirsk); SEMENOV, V.V., inzh. (Novosibirsk)

Manufacture of reinforced concrete products. Put' i put.khoz. no.11:32-33 N '58. (MIRA 11:12)

(Precast concrete)

15.2610
26.2532

25438

S/137/61/000/006/064/092
A006/A101

AUTHORS: Semenov, V.V., Doroshenko, A.G.

TITLE: The Peltier coefficient and thermo-emf of the Bi_2Te_3 alloy

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 6, 1961, 3-4, abstract 6Zh21 ("Tr. Odessk. tekhnol. in-ta i kholodil'n. prom-sti", 1959, v. 8, no. 2, 68 - 73)

TEXT: The thermo-emf α and Peltier heat of cylindrical Bi_2Te_3 alloy specimens were measured. Measurement of α were carried out on a conventional potentiometrical installation; the compensation method was employed to measure the Peltier heat, which excluded the effect of Lenz-Joule heat liberated in the specimen during the passage of current through it. It follows from data on the direct determination of α that $dE/dT = 2.18 \cdot 10^{-4}$ v/degree, and from measurements of the Peltier heat that $\alpha = 2.07 \cdot 10^{-4}$ v/degree. It is concluded that the Thomson correlation $P = \pm T (dE/dT)$, where P is the Peltier coefficient, is well applicable to the Bi_2Te_3 alloy.

N. Chernoplekov

[Abstracter's note: Complete translation]

Card 1/1

SEMENOV, V. V.

"The Principles of Compiling a Reference Book for X-ray Determination of Metals and Alloys"

a report presented at Symposium of the International Union of Crystallography Leningrad, 21-27 May 1959

MIKHEYEV, V.I. [deceased]; SEMENOV, V.V.

Materials for X-ray determination of metals and alloys. Zap. LGI 38 no.2:107-121 '61. (MIRA 15:1)
(Metallography)

S/139/62/000/002/026/028
E032/E514

AUTHORS: Kuz'menko, G.I. and Semenov, V.V.

TITLE: The wave properties of ions in electrolytes

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, no.2, 1962, 171-172

TEXT: It is pointed out that all the measurements of de Broglie wavelengths have been confined to particles with relatively high velocities, e.g. thermal velocities. The present authors report a determination of the de Broglie wavelength of Cu^{++} ions. The apparatus is shown in Fig.1. Two plane copper electrodes were immersed into a $CuSO_4$ electrolyte (1.02 - 1.15 g/cm^3) at 18°C. A constant potential difference was then applied to the electrodes, giving rise to a field of 0.1 - 5 V/cm. The cathode carried a screen made from an insulating material and carrying an aperture (0.5 - 2 mm). The screen was located at a distance of 0.2 - 2 mm from the cathode. The anode can either be in the form of a plate as mentioned above or in the form of a needle (point anode). The use of a point anode (copper needle) pierced through an insulating plate yields the best

Card 1/2

ACC NR: AP5022744 SOURCE CODE: UR/0181/65/007/009/2863/2865

AUTHOR: Novogrudskiy, V. N.; Fakidov, I. G.; Semenov, V. V.

ORG: Institute of Physics of Metals AN SSSR, Sverdlovsk (Institut fiziki metallov AN SSSR)

TITLE: Magnetic properties of Mn_3Ge_2

SOURCE: Fizika tverdogo tela, v. 7, no. 9, 1965, 2863-2865

TOPIC TAGS: manganese compound, germanium compound, phase transition, magnetic property, ferromagnetic material, magnetic anisotropy

ABSTRACT: Previous studies have shown that the compound Mn_3Ge_2 undergoes a first order phase transition at -120°C and that the compound is a weakly ferromagnetic material above this point. The present paper is an attempt to determine whether magnetic ordering takes place below the transition point. A magnetic balance was used to measure the intensity of magnetization in the longitudinal and transverse directions on grain-oriented specimens. Curves are given for magnetization as a function of field strength at various temperatures and for magnetic susceptibility as a function of temperature in both the longitudinal and transverse directions. Magnetic susceptibility decreases with an increase in temperature above -120°C and the susceptibility is very nearly equal in both directions independently of the field strength. This is

Card 1/2

L 9245-66

ACC NR: AP5022744

3

one of the most characteristic properties of weak ferromagnetic materials. The authors are grateful to B. S. Borisov for taking the x-ray photographs. Orig. art. has: 3 figures, 2 formulas.

SUB CODE: 20/ SUBM DATE: 16Apr65/ ORIG REF: 004/ OTH REF: 001

Card 2/2

AUTHORS: Yermilov, B. L., and Semenov, V. V. SOV/19-58-6-459/685

TITLE: A Squarer (Kvadrator)

PERIODICAL: Byulleten' izobreteniy, 1958, Nr 6, p 101 (USSR)

ABSTRACT: Class 42m, 14. Nr 113563 (571690 of 19 Apr 1957)
Submitted to the Committee for Inventions and Discoveries at the Ministers Council of USSR. A squarer for discrete-operation computers, based on presenting the square of the input value in the form of sum of the members of a series of uneven numbers; in the form of two binary counters.

Card 1/1

MIKELADZE, G.Sh.; NADIRADZE, Ye.M.; PKHAKADZE, Sh.S.; GOGORISHVILI, B.P.; DGEBAUDZE, G.A.; SOLOSHENKO, P.S.; SEMENOV, V.Ye.; BARASHKIN, I.I.; SHIRYAYEV, Yu.S.; POSPELOV, Yu.P.; KATSEVICH, L.S.; ROZENBERG, V.L.; Prinimali uchastiye: LORDKIPANIDZE, I.S.; TSKHVEDIANI, R.N.; DZODZUASHVILI, A.G.; DUNIAVA, A.G.; PEKARSKIY, L.F.; GRITSENYUK, Yu.V.; ZHELTOV, D.D.; LUZANOV, I.I.; GLADKOVSKIY, V.P.; PODMOGIL'NYY, V.P.; VORONAYEV, I.P.; BRIKOVA, O.V.; VRUBLEVSKIY, Yu.P.; KLYUYEV, V.I.; BAYCHER, M.Yu.; LOGINOV, G.A.; SHILIN, V.K.; POPOV, A.I.; ZASLONKO, S.I.

Industrial experiments in the smelting of 45 o/o ferrosilicon in a heavy-duty closed electric furnace. Stal' 25 no.5:426-429 My '65. (MIRA 18:6)

1. Gruzinskiy institut metallurgii (for Lordkipanidze, TSkhvediani, Dzodzuashvili, Guniava). 2. Nauchno-issledovatel'skiy i proyektnyy institut metallurgicheskoy promyshlennosti (for Brikova, Vrublevskiy, Klyuyev). 3. Vsesoyuznyy nauchno-issledovatel'skiy institut elektrotermicheskogo oborudovaniya (for Baycher, Loginov, Shilin, Popov, Zaslonko).

MAL'TSEV, L.A.; AKHMETSHIN, N.F.; ZHIVICHKINA, A.A.; SHCHEDROVITSKIY, Ya.S.; BARASHKIN, I.I.; PEKARSKIY, L.F.; SEMENOV, V.Ye.

Secondary current supply in closed-top ferroalloy-smelting furnaces. Stal' 25 no.12:1099-1100 D '65. (MIRA 18:12)

1. Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii i Almaznyanskiy zavod ferrosplavov.

137-58-6-12231

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 151 (USSR)

AUTHOR: Semenov, V. Ye.

TITLE: Certain Questions Pertaining to the Model Testing of Cold Forming Processes (Nekotoryye voprosy modelirovaniya protsessov kholodnoy shtampovki)

PERIODICAL V sb.: Progressivn. metody shtampovki i kovki. Khar'kov, Oblizdat, 1957, pp 192-208

ABSTRACT A description is presented of the significance of model testing. The principles of similarities between materials and of conditions of deformation are examined. Experimental data are presented on the forming of dome-shaped parts, the bending of parts from cylindrical sheet, and the upsetting of cylindrical specimens.

Yu.L.

1. Metals--Processing 2. Metals--Testing equipment

Card 1/1

SOV/124-58-7-8006

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 7, p 101 (USSR)

AUTHOR: Semenov, V.Ye.

TITLE: Aspects of the Theory of Similarity as Applied to Plastic Deformations (O nekotorykh voprosakh teorii podobiya pri plasticheskikh deformatsiakh)

PERIODICAL: Tr. Khar'kovsk. aviats. in-ta, 1957, Nr 17, pp 255-260

ABSTRACT: Bibliographic entry

1. Materials--Deformation 2. Plasticity--Applications
3. Mathematics--Applications

Card 1/1

SEMENOV,V.Ye. (Khar'kov)

Some means of checking results. Mat.v shkole no.4:64-65
Jl-Ag '59. (MIRA 12:11)
(Geometry--Study and teaching)

BORISOV, S.D.; SEMENOV, V.Ye.

Underground storage of gas in the Kuybyshev Gas Trust. Gaz. prom. no.11:38-40 N '58. (MIRA 11:11)
(Kuybyshev Province--Gas, Natural--Storage)

SEMENOV, V.Ye.

Hydrochloric acidization of well-bottom areas of gas wells of the Kuybyshev Gas Trust. Gaz.prom 4 no.8:12-13 Ag '59. (MIRA 12:11)
(Kuybyshev region--Gas wells)

FEDOROV, Ye.I.; SEMENOV, V.Ye.; SITSENT, L.Ye.; VEREVKINA, A.M.

Analysis operation of the Bashkatovskoye underground gas storage.
Gaz. prom. 5 no.5:44-47 My '60. (MIRA 14:11)
(Kuybyshev--Gas, Natural--Storage)

PROKHOROV, B.F., inzh.; RADZIVONCHIK, V.F., kand.tekhn.nauk;
SEMENOV, V.Ye., kand.tekhn.nauk

Using models to study the processes of die-stamping.
Sudostroenie 27 no.10:65-68 O '61. (MIRA 14:12)
(Sheet-metal work--Models)

ACC NR: AR6033115

P18 steel was observed. An insignificant increase of M was observed in U8 steel. Alpha-particle irradiation of nonmagnetic specialty steel in an initial strongly work-hardened state did not produce an appreciable change in M. Its irradiation with gamma rays of 1-Mev and with 2.25-Mev beta particles resulted in a more complex character of the change in M. It is supposed that it is possible to use the effect of nuclear particles on metal as a method of redistributing the dislocations in it, which were produced by the previous manufacturing processes. Experiments have shown that the strengthening effect of irradiation remains even after subsequent strengthening by plastic deformation. It is supposed that Me strengthening by irradiation is a method with potentials, especially in the use of multiply charged ions. L. Ustinov. [Translation of abstract]

SUB CODE: 20/

Card 2/2

ACCESSION NR: AP4011777

thermal expansion of the crystals is the important factor in the observed results and that changes in interaction between electrons and phonons have but insignificant effect. However, this effect is positive, in contrast to the sign for most semiconductors. It is possible that the decrease in transmission at 3.4-3.6 microns, observed with a temperature increase in all investigated samples of PbS, may be due to increased absorption of free current carriers. Orig. art. has: 1 figure and 1 formula.

ASSOCIATION: Institut fiziki i matematiki AN Lit. SSR, Vil'nyus (Institute of Physics and Mathematics, AN Lit. SSR)

SUBMITTED: 26Jul63 DATE ACQ: 14Feb64 ENCL: 01

SUB CODE: PH NO REF SOV: 000 OTHER: 005

Card 2/3

SEMENOV, Ya.M., inzh.; ORLOV, N.G., inzh.

Over-all mechanization of rail welding. Put' i put. khoz. 4 no. 12:18-20 D '60. (MIRA 13:12)
(Railroads--Rails--Welding)

SEMENOV, Ye.

American gas masks. Voen.vest. 41 no.12:113-116 D '61.
(MIRA 15:3)
(United States--Gas masks)

FEDOROV, V., kand.khimicheskikh nauk; SEMENOV, Ye.

Toxic chemical agents of the United States Army (as revealed by foreign press data). Voen. vest. 42 no.6:121-123 Je '62.
(MIRA 15:6)

(United States--Chemical warfare)

SEMENOV, Ye.

Some measures for improving the organization of quality control in the U.S.A. Biul.nauch.inform.: trud i zar.plata 4 no.6:77-79 '61. (MIRA 14:6)

(United States--Quality control)

SEMENOV, Ye.

Let's bring technological innovations into the forest! Okhr.truda i sots.strakh. 5 no.1:22-23 Ja '62. (MIRA 15:2)

1. Spetsial'nyy korrespondent zhurnala "Okhrana truda i sotsial'noye strakhovaniye".

(Lumbering--machinery)

SEMENOV, Ye.

Using motion pictures for the evaluation of work intensity. Biul. nauch. inform.: trud i zar. plata 5 no.2:60-63 '62. (MIRA 15:2)
(Motion pictures in industry) (Production standards)

SEMENOV, Ye.

There will be a large health resort here! Okhr. truda i sots. strakh. 6 no.5:15-16 My '63. (MIRA 16:8)

(Gorkiy Province--Health resorts, Watering places, ect.)

SEMENOV, Ye.

Herald of the struggle for workers' interests. Okhr. truda i sots. strakh. 6 no.11:11-14 N '63. (MIRA 16:11)

ACC NR: AP6021574 (N) SOURCE CODE: UR/0402/66/000/003/0278/0282

AUTHOR: Klyuyeva, Ye. V.; Semenova, Ye. V.; Selimov, M. A.

ORG: Institute of Poliomyelitis and Viral Encephalitis, AMN SSSR, Moscow (Institut poliomiyelita i virusnykh entsefalitov AMN SSSR)

TITLE: Fluorescent antibody method in rabies diagnosis

SOURCE: Voprosy virusologii, no. 3, 1966, 278-282

TOPIC TAGS: virology, rabies, clinical method, animal disease, disease vector, fluorescent antibody method, disease diagnosis, CLINICAL MEDICINE

ABSTRACT:
Results of the fluorescent antibody test, detection of Babes-Negri bodies, and injection of a healthy dog with serum from a suspected rabid dog were compared to determine their effectiveness as methods for rabies diagnosis. In 67 of 68 cases, rabies was confirmed by the fluorescent antibody method and by the longer biotest, while Babes-Negri bodies were found in only 62 cases. The fluorescent antibody method is advised for widespread use. [W.A. 50; CBE No. 10]

SUB CODE: 06/ SUBM DATE: 05Aug64/ ORIG REF: 004/ OTH REF: 006/

Card 1/1 UDC: 616.988.21-097.5-078.34

SEMENOV Ye.A.

BAGLAY, G.I.; PATKANOV, Ye.G.; RZHEKHIN, V.P.; SEMENOV, Ye.A.

Obtaining phosphatide concentrates and high-grade oil. (MLRA 10:8)
Masl.-zhir.prom. 23 no.7:7-10 '57.

1.Denpropetrovskiy maslozhitkombinat (for Baglay, Patkanov)
2.Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov.
(Phosphatides) (Oils and fats)

RZHEKHIN, V.P., starshiy nauchnyy sotrudnik; BODYAZHINA, Z.I.; VENGEROVA, N.V.; VISHNEPOL'SKAYA, F.A.; GALUSHKINA, N.A.; GAVRILENKO, I.V.; GRAUERMAN, L.A.; IRODOV, M.V.; KARANTSEVICH, L.G.; KREYSINA, R.A.; KUPCHINSKIY, P.D.; LEVIT, M.S.; LEONT'YEVSKIY, K.Ye.; LITVINENKO, V.P.; LYUBCHANSKAYA, Z.I.; MAZYUKEVICH, V.A.; MAN'-KOVSKAYA, N.K.; NEVOLIN, F.V.; POGONKINA, N.I.; POPOV, K.S.; PREMET, G.K.; SARKISOVA, V.G.; SEMENOV, Ye.A.; STERLIN, B.Ya.; SERGEYEV, A.G., kand.tekhn.nauk, obshchiy red.; PRITYKINA, L.A., red.; TARASOVA, N.M., tekhn.red.

[Technical and chemical production control and accounting in the oils and fats industry] Tekhnokhimicheskii kontrol' i uchet proizvodstva v maslodobyvaiushchei i zhiroperera batyvaiushchei promyshlennosti. Moskva, Pishchepromizdat. Vol.1. 1958. 403 p. (MIRA 13:1)
(Oil industries)

SEMENOV, Ye.A.; IVANOVA, N.A.

Refractometric method for the determination of the amount of benzine in waste water. Masl.-zhir. prom. 24 no.1:34-35 '58. (MIRA 11:3)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov.
(Gasoline--Analysis) (Water--Analysis)

BAGLAY, G.I., PATKANOV, Ye.G.; RZHEKHIN, V.P.; SEMENOV, Ye.A.

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Formation conditions and exploitation trends of peat resources of central districts. Zbor. st.po izuch. torf.fonda no.2:158-182 '57. (MIRA 11:8)

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Deformation foci in open die forging. [Trudy] MVTU no.40:130-135 '55. (MLRA 9:8)

(Forging)

SOV/137-58-8-18060

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 265 (USSR)

AUTHOR: Semenov, Ye. I.

TITLE On the Problem of Arranging an Experiment on the Plastic Deformation in Lead (K voprosu postanovki eksperimenta po plasticheskomu deformirovaniyu na svintse)

PERIODICAL: V sb.: Mashiny i tekhnol. obrabotki metallov davleniyem (MVTU, 79). Moscow, Mashgiz, 1957, pp 99-102

ABSTRACT: The arranging of experiments on the plastic deformation in the heated state runs into considerable difficulties. Therefore, such investigations are usually simulated on Pb, the deformation (D) of which at room temperature (20°C) corresponds to the behavior of steel at forging temperatures. By means of experiments with Pb it is possible to study the laws governing the change of shape and the D, and to verify the theoretical calculations of the distribution of stresses along the contact surfaces and the total strain of D. For the experiments it is necessary to use chemically homogeneous and well forged Pb. The problems of change of shape are solved by the method of coordinate grids. The distribution of stresses

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On the Problem of Arranging the Experiment on the Plastic (cont.)

on the contact surfaces is determined by the inflow of Pb into the slot of the die. The width of the slot should be 1.5 mm and the degree of upsetting 25%. During the D of Pb the temperature should be kept at 20° so that the laws governing the recrystallization would not vary. In measuring the stresses it is necessary to take into account the speed and the degree of D, since upon the variation of these factors σ_s varies from 0.5 to 5 kg/mm^2. With a degree of D of 13 - 15% and a variation in the rate from 2.5 to 6.5 units the value for σ_s = const = 2.38 kg/mm^2. For more precise calculations a diagram is given of the resistance to D of Pb upon pressing in relation to the rate and degree of deformation.

V. O.

1. Lead—Deformation 2. Lead—Testing equipment
3. Lead—Test results

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SOV/122-59-4-15/28

AUTHORS: Storozhev, M.V., (Cand.Tech.Sci., Docent), Semenov, Ye.I., (Cand.Tech.Sci., Docent), and Kirsanova, S.B., Engineer

TITLE: Refinement of the Pattern of the Deformation Core and Determination of the Force in Die Stamping (Utochneniye formy ochaga deformatsii i opredeleniye usiliya pri shtampovke)

PERIODICAL: Vestnik Mashinostroyeniya, 1959, Nr 4, pp 55-61 (USSR)

ABSTRACT: When forging in an open die, after the first stage of filling the die cavity, the second stage consists of pressing the excess metal from the die cavity into the flash and calibrating the height of the forging (upsetting). The maximum forging pressure occurs during upsetting. To find the relation between the dimensions of the deformation core and the thickness of the flash, tests were carried out with lead. Specimen blanks were split in two halves and a grid was drawn on one half. Both halves together were upset in the die, after which the half with the grid (Fig 2) was photographed. The deformed grid exhibits three zones, namely the zone of large deformation, the zone of small

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Refinement of the Pattern of the Deformation Core and Determination of the Force in Die Stamping

deformation and the undeformed zone. The first zone includes the flash. The tests were carried out with different flash thicknesses. Specimens with a large thickness revealed the three zones more clearly. The dimensions before and after the final forging deformation are tabulated (Table 1). Several geometric quantities were recorded in specimens after the tests leading to the mean height (thickness) of the flash during the calibrating period. In forgings with small flash thicknesses similar to those obtained in practice, the deformation core is small. To obtain a better measure of the deformation core, a further test was conducted. The specimen was photographed after upsetting and the die was subsequently ground down in the parting plane by the amount of flattening of the flash. The flash formed during upsetting was removed down to the forging diameter, and the forging operation was repeated. A substantial degree of deformation was achieved in the centre of the specimen without changing the conditions of upsetting and the degree of deformation of the flash. The plotting